

UNITED STATES TO LEAD THE WORLD IN FURS

AMERICA is to lead the world in furs! Henceforth the United States is to dye, dress and sell her own sealskins, and with-in her own borders. A factory is now built for this purpose in St. Louis, Mo., with experts.

Once this brand-new industry is fairly launched, St. Louis may proudly claim the distinction of being the center of the fur trade of the world. Already ranking third among the fur markets, circumstances arising from the European war have conspired to place the crown of fur leadership upon the brow of that city, with a yearly value that promises ten to twelve million dollars.

Soon the lordly sealskins, whose prohibitive cost has kept them away above the reach of the ordinary purse, even when the Christmas spirit pulls the strings wide apart, must perforce descend from their dizzy heights as fortune's favored tag, the label of wealth and affluence, and be found upon the gift list of the many instead of the favored few.

Because of the increase of population that has steadily pioneered into the remotest wooded wildernesses of the country, encroaching more and more upon the natural habitat of the fur-bearing animals and reducing their breeding places, furs have steadily diminished and their prices have correspondingly soared, until the possession of fur garments of fine quality has become the exception rather than the rule, save among the wealthy.

Through the trappers have penetrated farther and farther into the uninhabited regions of the north and have replenished their efforts to increase their yearly collection of pelts, it has been long since the supply met the demand, and the result has been that many inferior skins have been used as substitutes.

The fact that the natural production of first-class furs was in danger of exhaustion has caused the government to take drastic measures to conserve its seals and to go into fur farming upon an extensive scale as soon as it was demonstrated that various animals could be sufficiently domesticated for this purpose. This has now assumed the proportions of a vast industry that is worth millions of dollars annually to the government, as was demonstrated most forcibly by the recent auction of seal skins, when \$61,214.50 came to the United States Treasury from 648 skins, but seventy of which were fox skins.

Fox farming, by the way, is merely incidental to the main fur industry fostered by the government, which is that of the seal raising. Seventy beaver skins, which brought \$892.50, were confiscated by the authorities because they were taken during the closed season, and the balance of the stock put up at auction were blue and white fox skins for which record prices were obtained. Sixty-five white foxskins brought \$1,596 and the 518 blue foxskins the sum of \$56,726.

Immediately after the government skins were disposed of silver foxskins were sold at auction. One pair of Alaskan silver fox pelts brought \$2,810 and other pairs brought from \$1,850 to \$1,276, down to \$1,050.

No sealskins were offered at the auction, and the reason was most significant. In view of the facts that the United States is the greatest fur-seal producing country in the world, and at the same time the most extensive purchaser of the finished fur.

The reason is not hard to find, when it is remembered that St. Louis is to be the great fur center of the world, so long the autocrat of the earth, as the selling place of virtually all of the raw fur commodities must step down from her place of eminence, since the English pound has ceased to be the standard of the world's fur world's commerce.

The world's commerce is the American dollar, which is drawing the world's trade to America.

Then, too, Leipzig, Germany, in the past the largest buying and distributing market for furs, white and black, for a long time has been care to mark in London for her fur supplies, because of the animosities engendered by the war relations of the two countries. Leipzig has also been a large purchaser direct from Russia, which is also a great fur-producing nation.

Both America and Russia, as the greatest fur-producing countries of the earth, have heretofore sent all of their surplus furs to London to be sold at auction; and Leipzig has been the principal purchaser. After the war is over it is unlikely that Russia will care to immediately resume the trading relations of the past, and the plan of this government is to take advantage of this psychological moment in the gen-



EIGHT-TINE PAIR OF SILVER FOXES; THE ONES MARKED (X) BROUGHT \$2610. AT GOVERNMENT AUCTION SALE. © FURSTON BROS. CO.



SIXTH ANNUAL BANQUET OF THE ST. LOUIS FUR TRADE IN HONOR OF THE VISITING BUYERS TO THE PUBLIC AUCTION FUR SALE



SEA OTTER, DEWEY, LYNX AND ERMINE ON DISPLAY AT THE FURSTON BROS. SALE, ST. LOUIS

eral upheaval of commerce and to concentrate the surplus of American furs in the St. Louis market; then to endeavor to draw to it also the surplus of Russian furs.

By marketing the world's supply of furs in St. Louis, a large attendance of buyers from foreign countries will be attracted, among them, undoubtedly, the buyers from Leipzig. Russia will be glad to have her furs sold here in a neutral country, in order that they may reach the attention of the world's buyers, so she may get the best price for them. Such is the scheme.

The government, which is constantly working to enlarge the output, enhance the value of the products and increase the industries of the United States, has grasped at this logical moment of commercial disruption to establish definitely at St. Louis a market for its own furs. Moreover, it has concluded to see to it that all profit remains in the country. To this end it has entered into a limited contract with Furston Brothers & Co. of St. Louis, who are to conduct the recent auction, to put at auction to all buyers who may come its production of sealskins for the next five years.

A consideration of this contract is that this company is to see that the sealskins are sold to the United States before selling them; and this is to be done according to the best known to the fur trade. Hence this firm has secured one of the few exceptions of the world on the dyeing and dressing of sealskins, which process, by the way, is a secret art known to but one man in this country, known to a famous London establishment, all ready to begin work as soon as the factory, now under construction, is complete.

This is done at this particular time in order to prevent the deterioration of about 3,000 sealskins which the government now has in cold storage for safe keeping.

Concerning this new venture, to which such impetus has been given, Dr. Hugh M. Smith, director of the bureau of fisheries, said recently:

"It is but natural that the United States should sell its own sealskins, and dye and dress its own furs. This is something which it has never done."

We have always sent our sealskins to London, there we have paid to have them dressed and then we have brought them home again, paying duty on their return and other charges on account of double transportation. All of these various charges added about 32 per cent to the cost of the raw skins; so that by the time the fur came back to America, ready to be made up into garments, it cost more than one-half above its price when purchased as a raw skin.

With this new plan to sell and prepare our own furs right here in this country, we not only establish a new industry for our people to learn, but we also expect that it will return greater profit to the government on the sale of the skins, while at the same time reducing the expense incident to the dyeing and dressing. And the finished fur will undoubtedly be sold to the American consumer or purchaser at a lower cost than has ever before been the case.

The recent auction in St. Louis was the first public auction of government furs to occur in this country, and marks an epoch in the commercial history of the land. Two years ago, however, there was a private sale of a few sealskins that led up to the plan now in operation. It was a success, and better prices were obtained

than had been secured abroad; the government thus got more for its furs and the trader more for his. Last year there was no sale, because there was no market, and Congress authorized the withholding of it. This sale, the other month, attracted buyers from Germany, France, England, Austria and Canada.

The raising of foxes and the seal fur production are both enterprises carried on by the government by virtue of its ownership of the Pribilof Islands, which are small scraps of land in Bering sea, 300 miles west of the Alaskan mainland and 200 miles north of the chain of Aleutian Islands, that stretch out in the north Pacific toward the coast of Asia. These islands, two of which are more than twelve miles long, and two others more than six miles long, are also the home of the rare blue foxes, found elsewhere only occasionally. Although the value of these islands was appreciated, because of the seals, in 1867, when Alaska was purchased from Russia, it was thought best to

leave the seal raising in the hands of experienced sealers, and the sealing rights were thereupon leased. For a number of years this arrangement lasted, but in 1916 the lease was not renewed and the government proceeded to manage, through the bureau of fisheries, its affairs on these far-away seal and fox islands. Investigation showed a tremendous industry that needed more rigid management to develop its possibilities.

For instance, under the old leasing system, they would in 1916 have produced \$154,000, whereas they actually did turn into the Treasury \$400,000. A closed season for the purpose of building up the depleted seal herd was covered by an act of Congress, and this, in turn, was abolished by the treaty in December of 1911.

To which were the United States, Great Britain, Russia and Japan, the only countries engaged in the sealing industry. By the terms of this treaty the United States, in return for the stopping of all seal sealing, is to have entire control of the land sealing and to pay to Great Britain and Japan 15 per cent each of the total skins taken. It is expected that killing of the seal herd will shortly be resumed. The two large islands have been the stopping place of large packs of foxes which

PUBLIC AUCTION SALE OF THE U.S. GOVERNMENT'S AND OTHER FURS AT ST. LOUIS IN OCTOBER



U.S. GOVERNMENT'S BLUE AND WHITE FOXES; GRADED AND BUNDLED, READY TO SHOW TO BUYERS

live part of the year on the great number of eggs and birds that swarm over them in the nesting season. The balance of the year they have subsisted on the remains of the slaughtered seals that were killed for their hides. Thus, in great measure, the fox herd has been closely associated with and in some respects dependent upon the sealing, and during the closed season it suffered considerably. It is believed that when the killing of the seals is resumed the fox packs may be increased materially.

Fur farming came about through the scarcity of the first-class fur-bearing animals and the blue fox reached the first animal to be scientifically reared in this way. The results of the first experiments were a universal surprise for finer skins were obtained from the captive bred than have ever been caught in the remotest wildernesses. The reason for this is that the fur of the blue fox or arctic fox reaches perfection in the winter time, when it is the longest. The wild animal frequently spoils his beautiful coat by his thoughtless rubbing of his back against the sun, so the sun does not hurt his fur, the warmth of his body melts the ice, which he rubs against again and incloses the tips of the longest of his hairs. When he rises these are pulled out and left behind. But when these animals are kept in captivity, it is said that they do not thus lose their hairs.

According to a recent bulletin issued by the Department of Agriculture, the name "silver fox" as ordinarily used by furriers includes the dark phases of the ordinary red fox, called silver, silver gray, silver black or black. The market value of the skins of the variety of the animal. The beauty and scarcity of the silver fox have made it the most valuable of fur animals.

The silver fox was at first successfully domesticated in 1894 on Prince Edward Island. In 1910 the pelts from ranch-reared foxes brought higher prices than those of the wild animals, the average being over \$1,300 each. The rates for live animals for the purpose of breeding are \$100 to \$200, but the European war has brought them down considerably. The high values placed on the skins of animals have resulted in a close study of them in the different stages of domestication, but the facts of great value in fox farming.

A fox ranch should be situated where it has good drainage and be shaded in part by trees. Each pair of

foxes should have a runway of about 2,500 square feet. They thrive on a diet that is varied, including meat, fish, bread, mush, milk etc. The reproductive period is about ten years and the average litter contains four cubs. They bear their captivity well and are not difficult to care for.

Because of the exceedingly high value set upon silver foxes, many precautions are taken to avoid their loss. On some of the larger, more prosperous farms the animals are regularly examined by a doctor and guarded by watchmen, bulldogs and burglar alarms. Cats are kept on hand to act as foster-mothers to orphan cubs. Fox hounds are trained to overtake and hold, without injuring them, any runaway foxes that have escaped, and bloodhounds are employed to track thieves that would steal them.

Most surprising of all of the data to be had on the subject of fur farming, fur buying, etc., is that which concerns fur sales. For it would indeed be a wise animal that would know its own hide under cover of the names and guises by which it is put. Many of the buggery water and dry it. Then make a skin of the animal. After it has been dyed black. If taken a little earlier it can be made to represent either the polar or the black bear, according to the kind of dye used.

Another use for the Angora goat skin is in the making of hats. Each command a price per yard equivalent to \$15 for a single hide. Still another use is in the making of coats. Each medium value of loose goat skins is about \$2 apiece for well haired skins.

Angora goats are sometimes used to breed skunk, mink and sable by means of ranches or farms adapted to their habits; but unless these animals are successful it is claimed that these animals are doomed to extinction. Another animal to be exported upon in captivity is the chinchilla.

THIS EXACTING HOUSEKEEPER CARES FOR THOUSANDS OF BACTERIA

Special Correspondence
WASHINGTON, D. C.

HOW would you like to be such an exacting housekeeper that you would wash your dishes twice and rinse them in distilled water; use glass cooking utensils because they may be kept cleaner than any others; measure all of the ingredients of your food to a portion of a grain or gram, and keep a detailed account of all your cooking so that you could tell without fail how many ounces of heat or drops of water were put into yesterday's beef bouillon?

On the face of it this seems so bothersome that it is difficult to believe that any one would possibly have the patience to keep house in such a way. Let Miss Agnes Quirk of the Department of Agriculture follow a procedure of this kind every day in the painstaking manner that it requires, and blinks little about its extraordinary measures.

As scientific housekeeper par excellence of the National Capital, Miss Quirk has charge, under Dr. Erwin F. Smith of the commissary department, of the laboratory of plant pathology,

and it is her duty to supply the food material for the bacteriological laboratory studies. She has three assistants, who aid her in running her kitchen; nevertheless, she personally does all of the cooking materials and prepares all of the bacterial media—as this kind of foodstuff is scientifically called.

Bacterial diseases of plants are studied in the laboratory of plant pathology, and all sorts of experiments are made in each of the individual cases to determine the nature of the organism which causes the disease. For this reason, an enormous amount of bacterial media is used by the pathologists during a year. To be exact, 3,500 test tubes full are needed every month, and as all varieties of media are employed it is necessary that Miss Quirk follow the most exact methods.

Her workshop is a combination scullery, kitchen, pantry, cupboard and apothecary shop. Here, in her double capacity of chief cook and head nurse in this pathological establishment, she follows scrupulously the directions given in regard to the bacteriological diet.

Asar is one of the most popular of prepared foods. Other test tubes are filled with media made of corn meal—which might be considered the bacteria's bread—potatoes, beans, carrots and other vegetables. Fruits are not neglected in this ultra-scientific kitchen. Apples, apricots and banana agar are but three of a number of fruit preparations which might qualify as scientific desserts.

These media are a few of the thousands which are kept at hand ready for use. Of course, in many instances they are sent to the scullery and washed in another strange thing—a tuft of cotton will filter out the germs floating in the air.

The scullery is one of the most interesting parts of her ménage, not from its appearance—which differs little from any other room used for a similar purpose—but for the process which is followed in it in washing the soiled dishes.

When the test tubes of media are discarded by the pathologists after they have served their purpose in the experiments with the bacteria and fungi they are sent to the scullery and washed with a solution of acid, which cuts away and disinfects all bits of food adhering to the sides and bottom of the tubes.

They are then washed in alcohol to remove the traces of the acid and finally are rinsed with distilled water to remove the alcohol. The fourth step in this intricate dishwashing process is to wash the tubes in a solution of lime water. By no means the least important. After

each test tube, beaker or petrie dish is rinsed and dried it is wrapped in brown paper and baked for an hour and a half at 150 degrees centigrade to complete its sterilization.

The reason of such exact care, Miss Quirk explains, is obvious. The organisms which are studied are so minute that their characteristics are extremely difficult to observe; if any other living matter contaminates them the results of the different experiments are affected and the work rendered useless.

"My stove," Miss Quirk continued, explaining the equipment as she accompanied the interviewer through her kitchen, "are a bit unusual. In addition to the Bunsen burners, which correspond to any ordinary flame, and which I use for the simple boiling process, I have three kinds of ovens which are my steamers and bathtubs, autoclaves, which can be regulated to any high temperature and provide a quick means of sterilization, one being sufficient; the dry oven, mentioned as used for sterilizing glassware, and the steamer, which give a temperature of 100 degrees centigrade; in these the culture media must be heated four times at intervals of twenty-four hours to make certain that it will remain sterile."

During her connection with the laboratory Miss Quirk has designed a piece of apparatus which is calculated to be a time saver. Her design was executed at

the factory which supplies this line of material. It is a combination of glass tubing arranged in such a way to support funnels and ordinary tubes for measuring off amounts of media to fill test tubes.

"In order to illustrate how exact my methods must be," said Miss Quirk, "I will give you the steps which I follow in the preparation of one of the media—beef agar, for instance."

"I use on an average of six pounds of beef a day. I proceed to make it according to the standard recipe for beef bouillon, with one part of the minced beef and two parts of water, giving the meat a water bath at a temperature below 60 degrees centigrade. This draws out the blood, but will not coagulate the albumen in the meat."

"Then I put the jar into the steamer and increase the temperature so that the albumen may be coagulated and all of the meat juices be extracted. At this point the liquid corresponds to beef tea. But the bacteria are fastidious in the matter of their food, and I must follow a few more steps before the material is ready for them."

"I filter off the fat by pouring the liquid through a funnel of imported filter paper and make up the proper proportions of salt water to assure the original measure. After standardizing it according to a scale to determine its acid and alkaline properties, I am ready

to add chemicals according to the taste of the bacteria, which completes the process."

"This, then, is my method of cooking meat," Miss Quirk went on to say. "In many cases the pathologists desire to see the reaction of bacteria and fungi on cooked fruits and vegetables. In such cases I wash the fruit in distilled water, make a test tube, these are sterilized and plugged and may be kept for an indefinite time."

"After I have checked up the different media I give it the number to which it corresponds in my recipe book and set it away in the pantry. Each medium has a different recipe; each process in the preparation must be recorded as I follow it. To date, I have made 8,318 different batches of culture media, but though this sounds a formidable number, it is essential that each and every process be stated exactly, in case any one else wishes to reproduce a medium for the benefit of a scientist who is repeating an experiment."

"Though it may appear," Miss Quirk added, "that I follow a similar line of work every day, yet problems arise constantly for me to solve. As with every other household, I find that two ways exist for doing nearly everything. So I am constantly on the lookout for the right way and better methods or easier systems."